

## AMENDMENTS TO THE CLAIMS

1-102. (Canceled)

103. (New) A carrier comprising AngioPep-1 or a functional derivative thereof.

104. (New) The carrier of claim 103, comprising a fragment of AngioPep-1.

105. (New) The carrier of claim 103, comprising AngioPep-1.

106. (New) The carrier of claim 105, consisting of AngioPep-1.

107. (New) The carrier of any of claims 103-106, wherein the brain penetration or transcytosis across the blood-brain barrier of said carrier is greater than that of aprotinin.

108. (New) A conjugate comprising:

- (a) a carrier comprising AngioPep-1 or a functional derivative thereof, and
- (b) an agent attached to said carrier, wherein said conjugate is able to cross the blood-brain barrier.

109. (New) The conjugate of claim 108, wherein the carrier comprises a fragment of AngioPep-1.

110. (New) The conjugate of claim 108, wherein the carrier comprises AngioPep-1.

111. (New) The conjugate of claim 108, wherein the carrier consists of AngioPep-1.

112. (New) The conjugate of claim 108, wherein the brain penetration or transcytosis across the blood-brain barrier of said carrier is greater than that of aprotinin

113. (New) The conjugate of any of claims 108-112, wherein said agent has a maximum molecular weight of 160,000 Daltons.

114. (New) The conjugate of claim 108, wherein said agent is selected from the group consisting of a drug, a medicine, a protein, a peptide, an enzyme, an antibiotic, an anti-cancer agent, a molecule active at the level of the central nervous system, a radioimaging agent, an antibody, a cellular toxin, a detectable label, and an anti-angiogenic compound.

115. (New) The conjugate of claim 114, wherein said drug is a small molecule drug having a molecular weight less than 1000 g/mol.

116. (New) The conjugate of claim 114, wherein said agent is an anticancer agent.

117. (New) The conjugate of claim 116, wherein said anticancer agent is paclitaxel.

118. (New) The conjugate of claim 114, wherein said agent is an antibody.

119. (New) The conjugate of claim 108, wherein transport of said conjugate across the blood-brain barrier does not affect blood-brain barrier integrity.

120. (New) A pharmaceutical composition comprising a conjugate of claim 108 and a pharmaceutically acceptable excipient.

121. (New) The pharmaceutical composition of claim 120, wherein said composition can be administered intra-arterially, intra-nasally, intra-peritoneally, intravenously, intramuscularly, sub-cutaneously, transdermally, or *per os*.

122. (New) A method of transporting an agent across the blood-brain barrier, comprising the administration of the conjugate of claim 108.

123. (New) A method of transporting an agent across a blood-brain barrier, which comprises the step of administering to an individual the pharmaceutical composition of claim 120.

124. (New) A method for treating a neurological disease in an individual comprising administering to said individual in need thereof a therapeutically effective amount of the pharmaceutical composition of claim 120.

125. (New) The method of claim 124, wherein said neurological disease is selected from the group consisting of a brain tumor, a brain metastasis, schizophrenia, epilepsy, Alzheimer's disease, Parkinson's disease, Huntington's disease, stroke, and a blood-brain barrier related malfunction disease.

126. (New) The method of claim 125, wherein said neurological disease is a brain tumor or brain metastasis.

127. (New) The method of claim 126, wherein said agent is paclitaxel.